

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

*[Signature]*

In re Patent Application of

PEACH et al.

Serial No. 09/889,745

Filed: October 15, 2001

Title: ROCK BORING DEVICE



Atty Dkt. 4412-10

C# M#

TC/A.U. 3673

Examiner: Sunil Singh

Date: May 27, 2005

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

**RESPONSE/AMENDMENT/LETTER**

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

 **Correspondence Address Indication Form Attached.****Fees are attached as calculated below:**

Total effective claims after amendment	53	minus highest number previously paid for	53	(at least 20) =	0	x \$50.00	\$0.00 (1202)/\$0.00 (2202)	\$
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Independent claims after amendment	4	minus highest number previously paid for	4	(at least 3) =	0	x \$200.00	\$0.00 (1201)/\$0.00 (2201)	\$
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If proper multiple dependent claims now added for first time, (ignore improper); add  
\$360.00 (1051)/\$180.00 (2051) \$

Petition is hereby made to extend the current due date so as to cover the filing date of this  
paper and attachment(s)  
One Month Extension \$120.00 (1251)/\$60.00 (2251)  
Two Month Extensions \$450.00 (1252)/\$225.00 (2252)  
Three Month Extensions \$1020.00 (1253)/\$510.00 (2253)  
Four Month Extensions \$1590.00 (1254)/\$795.00 (2254) \$

Terminal disclaimer enclosed, add \$130.00 (1814)/ \$65.00 (2814) \$

Applicant claims "small entity" status.  Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee \$180.00 (1806) \$

Assignment Recording Fee \$40.00 (8021) \$

Other: \$

**TOTAL FEE ENCLOSED \$ 0.00**

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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NIXON & VANDERHYE P.C.  
By Atty: Paul T. Bowen, Reg. No. 38,009

Signature: *Paul T. Bowen*



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of

PEACH et al. Atty. Ref.: 4412-10; Confirmation No. 8923

Appl. No. 09/889,745 TC/A.U. 3673

Filed: October 15, 2001 Examiner: Sunil Singh

For: ROCK BORING DEVICE

\* \* \* \* \*

May 27, 2005

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

**RESPONSE TO RESTRICTION AND  
ELECTION OF SPECIES REQUIREMENTS**

In reply to the Official Action dated May 4, 2005, Applicants respectfully elect the invention of Group I as specified in paragraph 1 of the Office Action, and the species of Group I, as specified in paragraph 3 of the Office Action. Accordingly, Applicants' election includes claims 16-18, 20, 24, 26, 32, 33, 37-40, 46, 47 and 49-54. This election is made with traverse.

In general, Applicants traverse both the Restriction and Election of Species Requirements at this point of prosecution, where the prior art has been fully researched by the examiner over the course of three Office Actions on the merits. Further, many of the distinguishing features of the claims were discussed in detail with the examiner during a personal interview held on January 26, 2005. For example, the Interview Summary indicates that "It was agreed that claim 16 as discussed above would be allowable over the prior art." Note that claim 16 has been

amended in the form agreed in the interview to define over the prior art. Moreover, the remaining independent claims take slightly different approaches, but do include additional features, some of which are common to claim 16, that distinguish over the prior art for the reasons discussed at the interview. Applicants paid \$575 for entry of these claims and they should be examined. MPEP 1850 states that lack of unity should not be raised on the basis of a narrow, literal or academic approach; there should be a broad, practical consideration of the degree of interdependence of the alternatives presented, in relation to the state of the art as revealed by the search. See MPEP page 1800-95.

Applicants' traversals regarding the Restriction Requirement and the Election of Species Requirement follow.

Applicants traverse the Restriction Requirement for the following reasons. First, the Restriction is based on the premise that Group I is directed to a rock boring device and Group II is directed to a disc cutter. However, both groups of claims are directed to a rock boring device comprising, *inter alia*, a disc cutter.

Second, all of the independent claims currently on file are directed to a common special technical feature, for example, a rock boring device including, *inter alia*, a disc cutter structured to be driven in an oscillating manner and movable in a nutating manner. (Independent claim 83 is not limited to nutating movement although it is structured to be driven in an oscillating manner. Moreover, Applicants consider a disc cutter driven in an oscillating manner to be an example of a special technical feature which is included in all of the independent claims.)

Third, the Examiner has indicated that Group I is a rock boring device having a boom structure with an oscillating and nutating disc cutter, and Group II is directed to a disc cutter having a reaction mass being relatively large compared to the disc cutter and the cutter

oscillating and nutating with respect to the mass. As specified above, Applicants respectfully submit that examples of special technical features include an oscillating rock boring device as well as an oscillating and nutating rock boring device.

Fourth, rejoinder of at least dependent claims 57, 69-75 and 79-80 from Group II is respectfully requested since these claims are all directed to a rock boring device having a boom structure with the oscillating and nutating disc cutter. Stated differently, claims 57, 69-75 and 79-80 should be included and examined along with Group I.

Fifth, MPEP §1850 indicates that unity of invention is present *a priori* if the independent claims follow the format of A+X and A+Y, where A is a common special technical feature and X and Y are additional aspects. In the present case, one example of a special technical feature (A) is the nutating and oscillating feature, which distinguishes over the prior art, while X is the boom structure and Y is the reaction mass being relatively large compared to the disc cutter. Further, Applicants respectfully submit that features X and Y, either alone or especially in combination with A, distinguish over the prior art. According to the MPEP, such claims have unity *a priori*. Moreover, the benefit of any doubt should be given to the applicant according to MPEP §1850 (page 1800-96).

With respect to the Election of Species Requirement, Applicants traverse on the basis that PCT Rule 13.1 has no counterpart for U.S. Election of Species practice. The question is whether the claims share a common special technical feature. One special technical feature relates to a disc cutter having an oscillating and nutating feature (present in all independent claims except claim 83), while another special technical feature is considered to be a disc cutter having an oscillating feature without the nutating feature (the latter technical feature being present in all independent claims). Moreover, alternative forms of an invention may be claimed in a plurality

of independent claims, per MPEP §1850 (page 1800-96). PCT Rule 13.1 specifically provides for the inclusion of multiple inventions in a single application if all the inventions are linked to form a single general inventive concept, as in the present case. See MPEP §1850 (page 1800-95).

Second, regarding the Election of Species Requirement, Applicants respectfully request examination of the second group (including claims 83-86) since these are generic claims. In particular, claims 83-86 are generic because they are directed to an oscillating disc cutter which feature is also present in all of claims 16-18, 20, 24, 26, 32, 33, 37-40, 46, 47 and 49-54.

Accordingly, reconsideration and withdrawal of the Restriction and Election of Species Requirements are respectfully requested, and examination of all of pending claims 16-18, 20, 24, 26, 32, 33, 37-40, 46, 47 and 49-86 is earnestly solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

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